## Spring 2018 Math Circle

## A NOTE TO FAMILIES

Thank you for participating in the Spring 2018 Shippensburg Area Math Circle. This session marks the conclusion of our 4th year of Math Circle and we were thrilled to have 15 students registered and regularly attending Saturday morning math sessions. We really liked seeing students collaborating and working together alongside our Shippensburg University student leaders (Brad, Sarah, and Crystal). We really hope this was a positive experience for your child.

We hope to continue and build the Shippensburg Area Math Circle. For more information about the Shippensburg Area Math Circle visit us at http://webspace.ship.edu/ lebryant/mathcircle. In addition to family contributions, we thank our sponsors: Grace B Luhrs University Elementary School PTO, Shippensburg University Department of Mathematics, and the National Association of Math Circles.

Below we include some notes about the activities we did, along with some links to learn more.

## ACTIVITIES

**Problem Solving with Pictures** One of our favorite problem-solving strategies is to draw a picture! Before kids learn algebra, they are still well-equipped with tremendous number sense and can draw a picture that represents a scenario and captures the important information. We also used logic to deduce the useful potion in the Harry Potter riddle.





Visual Puzzles In this activity, students explored various visual geometry puzzles. These types of questions are meant to encourage trial-and-error, reasoning, and visualization. Much of mathematics relies on the ability to keep track of patterns and visualize shapes, and our Math Circle students were excellent at this! 2

Hexaflexagons Sometimes math can be very much like play! We worked on the important strategy of "following directions" and students followed the directions to make trihexaflexagons. You may have seen these interesting shapes- they seem to have 2 sides but really have 3! Some kids liked this so much they requested more – so we will be sending some more templates home!





**Frogs and Toads** This game took patience and trail-and-error to solve. But we did see some great solutions! Once the pattern (algorithm) was discovered, it was a fun race to the finish! You can try the game at home with nickels and quarters, but be sure to follow the rules!

Some Recommendations

We hope you continue to encourage problem-solving of all types and varieties, including cool projects found here: Interesting websites with great math content: Math Pickle http://mathpickle.com/ Math for Love http://mathforlove.com/

There are many games & books that promote mathematical and logical thinking.

